SPACE ENVIRONMENT CENTER

Boulder, Colorado

Mission

The Space Environment Center provides real-time monitoring and forecasting of solar and geophysical events, conducts research in solar-terrestrial physics, and develops techniques for forecasting solar and geophysical disturbances. SEC's Space Weather Operations Center is jointly operated by NOAA and the U.S. Air Force and is the national and world warning center for disturbances that can affect people and equipment working in the space environment. The Center is both a laboratory in NOAA Research and one of the centers in the National Weather Service's National Centers for Environmental Prediction.

Brief History

SEC's predecessor, the Space Environment Laboratory, was formed in 1962, and began disseminating daily forecasts of space environment conditions in 1965 before NOAA existed. The service came into being during World War II when variations in the space environment adversely affected communications radar and radio navigation. The importance of these services has increased with the flourishing and expanding use of electronic devices, vulnerable to space weather, the use of satellites for communication and radio navigation, the deregulation of the electric power grid, and increased passenger flights at high; attitudes and altitudes.

In 1995 NOAA and the other government agencies interested in space weather initiated the National Space Weather Program (NSWP) to coordinate the nation's R&D, transitions to operations, and services efforts in space weather. The NSWP participants are the Departments of Commerce, Defense, Energy, Interior and Transportation, with NSF and NASA, and is administered through the Federal Committee for Meteorological Services and Supporting research (FCMSSR and the Office of the Federal Coordinator for Meteorology. SEC is a member for the International Space Environment Services (ISES), which traces it's parentage to the International Council of Scientific Unions (ICSU).

SEC, like the National Weather Service has done for meteorology has developed devised and implemented models to guide forecasters, pursued data assimilation, and partnered with the United States Air Force for data and models, and relied upon a services industry to tailor products for individual users. SEC has also performed world-class research to better understand the space environment.

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Financial Profile (In thousands of dollars)

Fiscal Year	Permanent Funding	Other NOAA	Non-NOAA	Pass Through	TOTAL
FY 2001	5731.3	526.1	777.6	0	7035
FY 2002	6033	747.6	341.3	377	7498.9
FY 2003	3837.4	2,157	828.5	1063	7885.9

Personnel Data

FY	FEDERAL EMPLOYEES	JOINT INSTITUTE	Contractors	TOTAL
FY 1999				
FY 2000	54	4	0	58
FY 2001	49	6	0	55
FY 2002	47	13	0	60
FY 2003	46	12	0	58

Average Age Federal/Scientific/Engineering and Technical Staff	53
Average Age of JI/Scientific/Engineering and Technical Staff	47

Federal Staff	PhD	26%	MS	11%
JI Staff	PhD	42%	MS	25%

SPACE ENVIRONMENT CENTER
PARTNERSHIPS

PARTNERSHIPS	IDENTIFY (and explain)
JOINT INSTITUTES	CIRES
PARTNERSHIPS WITH OTHER LABS	
OTHER OAR PROGRAMS	
OTHER NOAA RELATIONSHIPS	NESDIS, NWS, NOS
OTHER FEDERAL AGENCIES	USAF, USN, DOD, DOI, NASA, NSF, DOT, DOE, National Space Weather Program
STATE AGENCIES	
LOCAL PARTNERSHIPS	Denver Museum of Natural History

UNIVERSITY PARTNERSHIPS INTERNATIONAL	International Space Environment Services, CRL (Japan), ISRO (India), RAL (England), European Space Agency